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The Ohio Water Table

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Growing Urgency of Environmental Challenges and Increasing Importance of Water Education Spark Changes at Project WET

Press Release, Bozeman, Mont. - March 11, 2020

Educating people to understand water has taken on new urgency as global environmental challenges proliferate. World leaders, academics and corporate executives are calling water "the oil of the 21st century"—and unlike oil, water has no substitute. To better address these critical water challenges and honor the diversity of its users worldwide, the Project WET Foundation—the world's leading water education organization—is announcing a series of changes to its identity, mission and leadership.

Project WET's new mission is "*Advancing water education to understand global challenges and inspire local solutions".* It reflects the role that effective, action-oriented water education plays in confronting serious environmental issues such as climate change. A new Project WET climate resilience education guide will launch this month, emphasizing the organization's commitment to inspiring solutions to pressing global challenges.

Project WET's leadership is also changing. Dennis Nelson—who founded Project WET in North Dakota and developed the program into a global leader in water resources education—is retiring as of the end of March. John Etgen, who joined Project WET in 1994, is the new CEO of Project WET.

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Inside this issue:

President's Column

Eugene Braig, WMAO 2020-2021 President

Well, here's a newsletter column that I never expected to write: the Water Management Association of Ohio (WMAO) under the effects of global pandemic and some level of almost universal restrictions on travel and gatherings. At present, my own work—teaching course-work, misc. meetings…even presenting for diverse groups—is entirely conducted from a stool in front of a laptop on a stereo stand in the hinterland between my mudroom, great room, and kitchen. I am fortunate both to have the resources at my disposal to do so and to be paid on a salary. My heart aches for those who cannot and whose hardships are resultantly greater than my own. Even more so for those enduring (or whose loved ones are enduring) COVID-related illness. My best wishes are with you all, my hydrocolleagues.

Of course, WMAO has also responded, has eliminated in-person events, has commuted much of our own business to electronic platforms including board/committee meetings and even [segue] our spring mini conference. This annual March event has come to be a collaborative function between us (WMAO), the Ohio State University's (OSU) Environmental Professionals Network, the Ohio Water Resources Center (WRC), and TerrAqua (our own student-org affiliate at OSU). In literally a matter of days, we quickly moved from what had been planned as a rather large in-person event with interstate travel, in-person attendees, registration fees, catered food, exhibitors, student networking opportunities, etc. to a free web-based webinar. Thanks to the leadership of OSU's Dr. Joseph Campbell, the super-effective and should-be-even-better-appreciated labors of OSU's Nicole Jackson and WMAO's Dana Oleskiewicz, and the remarkable flexibility of our excellent panel of speakers and MCs, I would categorize the event as a success (the degree of success great enough to have actually surprised me, especially given that it was our first such outing…and hastily assembled under emergency conditions at that). We had good registration and participation, good interaction with online "attendees" posting insightful questions via a "chat" feature, and even retained sponsors and managed to generate some profit for WMAO. You can view a recording of the entire program via a link from this page.

"In literally a matter of days, we quickly moved from what had been planned as a rather large in-person event ….to a free web-based webinar."

Oddly, in this era of "meeting" without actually meeting, I seem to be committed to more meetings than ever before…just via Zoom rather than in physical proximity to attendees. Zoom does have some security issues (I don't know of a web-based platform that doesn't) and has drawn some recent criticism from the press and even some government entities. I've used several such platforms and frankly like Zoom's ease of use and functionality. Keep in mind that Zoom and all similar, web-based meeting platforms are commercial entities, that all such entities are there for the profit of their shareholders. None of them is any more invested in your personal interests than any other; service to you is ultimately an effort to earn your business. If you use Zoom in your own work, be aware that there are easy safeguards available to reduce the risk of "bombing"; my own virtual "classroom," e.g., requires an OSU username and password to enter. Please familiarize yourself and take some time to implement as appropriate.

Regarding the Ohio Environmental Educational Fund's annual scholarship, WMAO Education Director Dennis Clement informs me "that we've extended the application deadline to June 1 this year to make it easier to compile transcripts and letters while not in residence on campus. They have also doubled the size of the scholarships in recognition of today's tuition costs. $5,000 is available for rising fourth-year students in four-year programs, and $2,500 for rising second-year students in two-year programs. The application is posted at https://www.ohiosci.org/oeef-scholarship. All questions about the scholarship need to be directed to Mike Woytek (mwoytek@ohiosci.org)." The WMAO Student Scholarship ($1,000) also has an extended deadline date for application submission to September 1st. Please spread word among any college students and educators you know.

Sorry, that went on longer than expected, but times are weird out there. Be well, friends.

SAVE THE DATE!

WMAO 49th Annual Conference and Symposium

November 4 & 5, 2020

Crowne Plaza Hotel - Columbus North

Clean, Safe Water

CALL FOR ABSTRACTS

The WMAO Conference Planning Committee is closely monitoring information about how Covid-19 might affect future gatherings and travel. We plan to proceed with this annual event just as in previous years unless we are required to make adjustments accordingly. Updates will be continually presented on the WMAO conference website. In the meantime, we encourage you to mark your calendars and urge potential presenters to submit abstracts so that we may provide timely information regarding the conference agenda.

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The former Senior VP and Chief Operating Officer, new CEO John Etgen has led major organizational initiatives throughout his tenure with Project WET, including the development of Project WET's international network. In 2000, he spearheaded a national day of water festivals in 89 locations for 15,000 people to launch Make a Splash with Project WET. He also managed Project WET's water quality education program, Healthy Water, Healthy People, and led Project WET's water, sanitation and hygiene (WASH) initiative with USAID.

"When Dennis Nelson founded Project WET in North Dakota in 1984, the concept of educating non-technical audiences about water was revolutionary, as was the idea of specifically training teachers to carry out that education," Etgen said. "As millions of educators have used Project WET's interactive methods to teach about water, the universality of those methods became clear. Although we will always look to teachers as leaders in Project WET, we know that Project WET works equally well for corporate employees, park rangers, scout troop leaders or anyone else who wants to teach about water using hands-on activities."

"Moreover, given the seriousness of global issues such as climate and resilience, it's crucial that Project WET lead the way in encouraging people from all walks of life to teach about water," he concluded. "When people understand the global challenges of water, they can take action to solve water problems in their communities."

Project WET video: https://vimeo.com/396551136

About the Project WET Foundation: Project WET (Water Education Today) advances water education to understand global challenges and inspire local solutions. Since 1984, tens of millions of people around the world have learned about water using Project WET's interactive, hands-on activities. Through its worldwide network of implementing partners, Project WET is active in all 50 U.S. states and more than 70 countries. Visit https://www.projectwet.org/.

Water Management Association of Ohio
$1,000 Student Scholarship

Application Deadline has been extended
September 1, 2020

Eligibility Criteria

Research Highlights from State of Ohio Water Resources Center

The Ohio Water Resources Center is a federally authorized center situated at The Ohio State University. We fund State relevant water related research. Below are highlights from a recently completed project conducted by Dr. Ishi Buffam, former Assistant Professor of Biology and Geography at the University of Cincinnati (currently at Swedish University of Agricultural Sciences). The project, **"Characterizing the Link Between Algal Bloom Biomass and Methane Production in Ohio Reservoirs"**, aimed to characterize the relationship between algal blooms and sediment CH_4 production rates in Ohio reservoirs, as mediated by sediment organic matter quantity and quality and the sediment microbial community.

Figure 1. Dr. Jake Beaulieu and Megan Berberich collecting sediment cores with K -B corer

Algal blooms and their known negative environmental impacts associated with nutrient enrichment have been the leading cause of impairments of Ohio's surface waters. However, there has been little research evaluating the increased potential for in-lake production and emission of methane (CH_4) associated with eutrophication. Some lab studies show the potential for increased methane production in surface water sediments when labile algal organic matter is added, but it is unknown whether this relationship translates to the field scenario.

Dr. Buffam's team took samples from Harsha Lake in Ohio and determined CH_4 production rates, composition of organic matter in sediment and genetic composition of methanogens (Figure 1). The results indicated that quantity of organic matter but also source (terrestrial versus algae derived) were both important for methane production rates in the reservoir. For Harsha Lake, areal CH_4 production rates were highest in the riverine portion of the reservoir, even when rates were normalized to organic matter quantity (OM) (Figure 2). This suggests that not only was OM more abundant in the riverine zone, it was also more readily utilized by methanogens. Additionally, this zone was the shallowest, and the researchers determined methanogen archaea community shift towards acetate utilizers in locations with higher terrestrial OM contribution. Based on our results that show high degree of spatial variation in CH_4 production rates, studies of reservoirs as well as natural lakes with substantial riverine inputs should take into consideration a spatially-aware sampling approach to determine CH_4 production and emissions, rather than sampling only at a single deep location.

"...studies of reservoirs as well as natural lakes with substantial riverine inputs should take into consideration a spatially-aware sampling approach to determine CH_4 production and emissions,..."

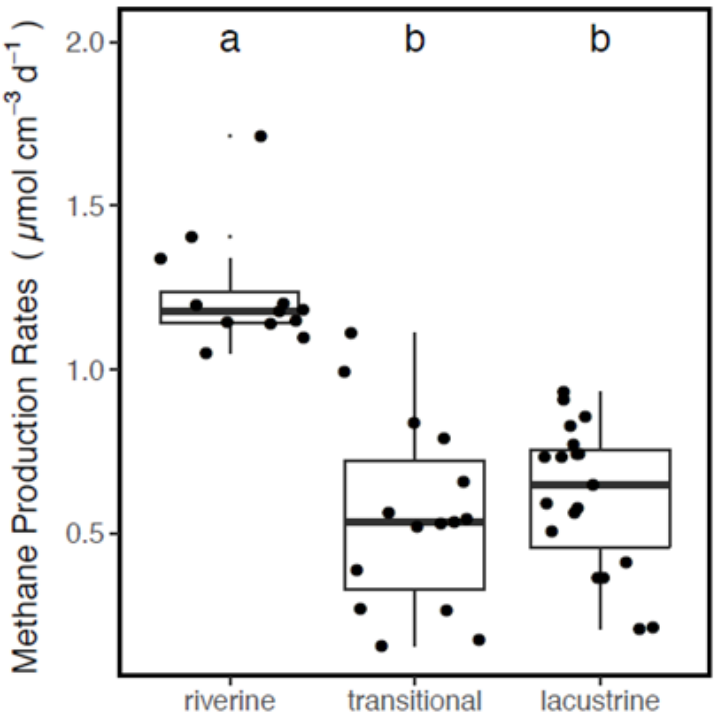


Figure 2. Potential methane production rates from sediment slurries in each of the reservoir zones, normalized to sediment volume

Published in: Berberich, M., J.J. Beaulieu, T.L. Hamilton, S. Waldo and I. Buffam. 2019. Spatial variability of sediment methane production and methanogen communities within a eutrophic reservoir: importance of organic matter source and quantity. **Limnology and Oceanography**. doi: 10.1002/lno.11392.

Researcher Profile: Dr. Ishi Buffam received his Ph.D. from the Swedish University of Agricultural Sciences. His research training stems from aquatic chemistry and biogeochemistry, and more specifically focuses on carbon and nitrogen transformations and hydrological transport with boreal and temperate watersheds. He also has experience in putting freshwater carbon cycling processes into the context of landscape and regional scale carbon cycling.

Statement from Director Pelanda Regarding H2Ohio

Press Release, Columbus, Ohio - April 7, 2020

The Ohio Department of Agriculture (ODA) applauds Ohio farmers' demonstration of voluntary conservation through the overwhelming sign up of H2Ohio best practices to reduce phosphorus in the Maumee River Watershed. Nearly 2000 farmers submitted applications to enroll more than more than 1.1 million acres. This far exceeded expectations for the agricultural portion of the H2Ohio program.

While the rollout of the program was very thoughtfully executed, the economic impact of the COVID-19 pandemic has caused a necessary reevaluation of ODA's budget for the H2Ohio Initiative. ODA is committed to working within the Administration's budgetary guidelines and will communicate with farmers the status of H2Ohio going forward based upon those guidelines once they are known.

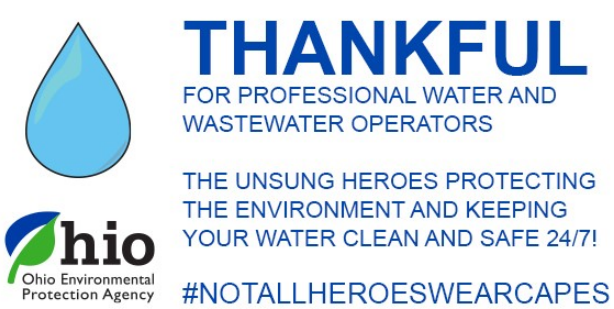
Ohio EPA Advises Against Flushing Wipes

As some Ohioans search for alternatives to toilet paper, Ohio EPA is advising people not to flush any product other than toilet paper to avoid clogging sewers and septic systems.

Flushing products other than toilet paper is generally a bad idea. Cleaning wipes, tissues, and paper towels will eventually clog public sewers and home septic systems. Flushing these items can cause sewage backups into homes and expensive repairs. Even in normal times, only toilet paper should be flushed. Toilet paper dissolves more easily in water.

Wipes are among the most commonly flushed items which shouldn't be flushed. Among products and items that should never be flushed are:
wipes, including baby wipes and disinfectant wipes – even if they are labeled as flushable; cat litter; diapers; hygiene products including cotton balls and swabs, menstrual products, and condoms; medications, including prescription and over-the-counter medicines; and fats and grease.

These items always should be bagged and thrown in the garbage. More information is available online from the Water Environment Federation and U.S. EPA, or by calling local municipal sewer and septic system professionals.



The Ohio Environmental Protection Agency was created in 1972 to consolidate efforts to protect and improve air quality, water quality and waste management in Ohio. Since then, air pollutants dropped by as much as 90 percent; large rivers meeting standards improved from 21 percent to 89 percent; and hundreds of polluting, open dumps were replaced with engineered landfills and an increased emphasis on waste reduction and recycling.

New EPA Grants Update

EPA's Office of Grants and Department will be hosting a Grants Award Process Webinar for EPA applicants and recipients. This is a high level webinar that covers topics related to finding and applying for grants, as well as the basics of managing an award. It will be very similar to previous webinars. We will be recording the webinar and the recording will be available at the webinar page listed below. Please pass this info along to anyone you think might be interested.

Link to Webinar Info: https://www.epa.gov/grants/epa-grants-award-process-webinars
Date: April 28th, 2020
Time: 2:00 - 3:30pm ET
No registration is necessary.

Ohio Floodplain Management Association

The Association of State Floodplain Managers Releases: *"Understanding and Managing Flood Risk: A Guide for Elected Officials"*

Floods are the leading cause of natural disaster losses in the United States. Understanding the vulnerability of people and the built environment is an important first step to minimize impacts from the next flood. ASFPM has recently published a free three-part comprehensive guide for elected officials. And, while it may seem challenging, flood management boils down to protecting people and property. This flood risk guide walks elected officials through the key information they need to know to meet that responsibility. The ASFPM Foundation partnered with ASFPM in the development of this guide.

The Guide for Elected Officials in broken down into three volumes:

Volume I: The Essentials

Learn the essentials that elected officials need to know about flood risk in their community.

Volume II: Moving Beyond the Essentials

Takes a deeper dive into property protection, flood insurance, managing and strengthening local flood management programs, and more.

Volume III: Success Stories

Explore case studies and interviews from a variety of communities nationwide that successfully tackled flood mitigation.

Wise flood management provides the means to address communities' flood problems before, during, and after an event as well as create sustainable development for future generations. The new publication, "A Guide for Elected Officials" can be found on the ASFPM website by clicking here.

Upcoming Events

Ohio Floodplain Management Conference - Columbus OH - August 2020 (TBD)

Ohio Stormwater Conference - Kalahari Waterpark, Sandusky - August 26-28, 2020

Ohio Rivers Symposium - Columbus - September 11, 2020

WMAO Annual Conference - Columbus OH - November 4 & 5, 2020

CONGRATULATIONS!

The **Ohio Water Resources Center** was recently reviewed along with 54 Water Resources Research Institutes by evaluation as a panel appointed by the U.S. Geological Survey pursuant to Section 104(e) of the Water Resources Research Act of 1984, as amended. Based on the results, the Ohio WRC is one of 12 ***performing at an outstanding level***.

The partnership that is shared between Ohio WRC and WMAO is much valued. We commend our colleagues on a job well done and look forward to many more years of collaboration offering water resources research and management programs throughout Ohio!

Ohio EPA - $5,000 Scholarship

Application Deadline has been extended to June 1, 2020

Eligibility Criteria

In Memoriam

Steven Martin Hindall, PE

June 22, 1942 – April 21, 2020

https://ohiocremation.org/obituary/steven-martin-hindall/

Steve was born in Ada Ohio where he earned his BSA Eagle Scout at age 12. He attended Ohio Northern University where he earned his BSCE in 1964 and was a Sigma Phi Epsilon brother at Ohio Alpha. Upon graduation he married his high school sweetheart, Sandra Lynn Fulks and they journeyed to Arizona where Steve earned his MS in hydraulic hydrology from the University of Arizona in 1966.

Moving then to Madison, Wisconsin he began his 37 year career with the United States Geological Survey that found him advancing from field hydrologist up to Assistant District Chief in Trenton, New Jersey and finally ending his career as District Chief of Ohio, Water Resources Division where he retired in 2003. Steve was a long time member and insightful leader with the Water Management Association of Ohio.

He resided in Worthington, Ohio where he was an active member at Worthington Presbyterian Church for 40 years and joyfully sang in the Chancel Choir. Steve is survived by his loving wife of 55 years Sandy, his brother and sister-in-law Brad and Jane Hindall, sister-in-law Genie Hindall, his children Scot and Kathryn Hindall, Shelly and Dave Hart, and his grandchildren Ben and Abby Piecenski, Drew Hindall and step-grandson Alex Hart.

Visit www.OhioCremation.org for memorial information and to leave the family an online condolence.

WATER MANAGEMENT ASSOCIATION OF OHIO

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Dana Oleskiewicz, Administrative Director

www.wmao.org

The Water Management Association of Ohio (WMAO) is the one organization dedicated to all of Ohio's water resources.

VISION: To be recognized statewide as the go-to community for people who manage and safeguard Ohio's water resources.

MISSION: To support Ohio's water resource professionals with essential information, education, and networking opportunities

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